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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,699	08/22/2001	Satoru Okamoto	SEL 273	9139
7590 11/28/2007 COOK, ALEX, MCFARRON, MANZO CUMMINGS & MEHLER, LTD. Suite 2850 200 West Adams St. Chicago, IL 60606			EXAMINER DUONG, THOI V	
		ART UNIT 2871	PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/934,699	OKAMOTO ET AL.	
	Examiner	Art Unit	
	Thoi V. Duong	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 September 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 52-103 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 52-101 and 103 is/are rejected.
- 7) Claim(s) 102 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 25, 2007 has been entered.

Accordingly, claims 52, 60, 68 and 77 were amended, claims 1-51 were cancelled, and new claims 86-103 were added. Currently, claims 52-103 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 52-54, 59-63, 68-71, 77-81, 87, 90, 93 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (Harada, US 6,486,890 B1) in view of Nakamura et al. (Nakamura, US 5,734,914) and Nakai et al. (Nakai, US 6,072,454).

Re claim 52, as shown in Figs. 2A, 2B, 4 and 9-11, Harada discloses an electronic device 51 comprising:

a cover member comprising a first display device 54-2 for displaying an image; and

a second display device 54-1 comprising a touch input tablet (col. 8, lines 19-37 and col. 11, line 56 through col. 14, line 42),

wherein the cover member comprising the first display device 54-2 and the second display device 54-1 are attached to each other via a hinge 56 to allow opening and closing (col. 8, lines 46-54);

wherein the second display device 54-1 includes a thin film transistor TFT (Fig. 4);

wherein the first display device 54-2 and the second display panel 54-1 are a liquid crystal display device 54 (col. 8, lines 35-40); and

wherein the cover member protects a display screen of the second display device 54-1 (Fig. 2B).

However, Harada does not suggest a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU.

As shown in Fig. 1, Nakamura discloses a display comprising an LCD display device 16 and a computer system comprising a CPU 11 electrically connected to the LCD display device 16 and a Bios Rom 17 consisting of a flash memory electrically connected to the CPU (col. 3, line 44 through col. 4, line 30).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the electronic device of Harata by employing the computer system of Nakamura comprising a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU in order to realize high-speed operation, power saving and low cost production (col. 1, lines 61-63).

Re claims 60 and 61, as shown in Figs. 1 and 2, in addition to the CPU 11 and the flash memory in the Bios Rom 17, Nakamura further discloses a VRAM 15, a DRAM 18, and a memory card 33 (col. 3, lines 44-65 and col. 4, lines 50-55), wherein the VRAM 15, the DRAM 18, and the memory card 33 are electrically connected with the CPU.

Re claim 68, Nakamura further discloses that the CPU processes and outputs an image signal, and a control circuit 14 (display controller) distributes the image signal as data to the LCD device 16 (col. 3, lines 51-60 and col. 4, lines 14-20). Accordingly, it is obvious that the image signal data corresponds to each pixel for image display in the LCD device.

Further, Harada does not disclose that the thin film transistor of the second display device is formed of a semiconductor layer of amorphous silicon as recited in claims 52, 60, 69 and 78; or the first display device or the second display device includes an inverse stagger TFT as recited in claim 77.

However, according to an intended application, it is well known in the art that the TFT is formed of a semiconductor layer of amorphous silicon and the display device

includes a top gate TFT or an inverse stagger TFT as disclosed by Nakai (col. 17, lines 35-41).

Re claim 79, Nakamura discloses a flash memory electrically connected with the CPU as mentioned above.

Re claims 53, 62, 70 and 80, Harada discloses that the first display device 54-2 is an active matrix display (Fig. 4)).

Re claims 54, 63, 71 and 81, as shown in Figs. 9-11, Harada discloses the second display device 54-1 comprising the touch input tablet displays on a screen at least one item selected from the group consisting of at least one button and an image (col. 11, line 56 through col. 14, line 42).

Re claims 59 and 76, Harada discloses that the portable electronic device is a portable computer (col. 1, lines 11-15).

Re claims 87, 90, 93 and 96, as shown in Fig. 4 of Harada, a display screen of the first display device and a display screen of the second display device are same size.

4. Claims 58, 67, 75 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (Harada, US 6,486,890 B1) in view of Nakamura et al. (Nakamura, US 5,734,914) and Nakai et al. (Nakai, US 6,072,454) as applied to claims 52-54, 59-63, 68-71, 77-81, 87, 90, 93 and 96 above, and further in view of Watanabe (US 6,098,055).

As shown in Figs. 1 and 2, Nakamura discloses the CPU 11 including an image signal processing circuit 10A, wherein information processed by the CPU is outputted as the image signal from the image processing circuit 10A to the control circuit 14 (col.

3, lines 51-61 and col. 4, lines 14-20). However, Harata in view of Nakamura and Nakai does not disclose a tablet interface for inputting a signal from the touch input tablet as recited in claims 58, 67, 75 and 85.

As shown in Figs. 2 and 6, Watanabe discloses a portable terminal comprising a liquid crystal display device 18 having a touch input tablet 19 (touch panel) and a tablet interface 24 (I/O interface) for inputting a signal from the touch input tablet (col. 4, lines 12-24 and col. 5, lines 47-59).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the electronic device of Harata by having a tablet interface for generating a signal from the touch input tablet of the second display device (col. 5, lines 47-59).

5. Claims 52-57, 59-66, 68-74, 76-84, 89, 90, 93 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suso et al. (Suso, US 6,069,648) in view of Harada et al. (Harada, US 6,486,890 B1), Nakai et al. (Nakai, US 6,072,454), and Nakamura et al. (Nakamura, US 5,734,914).

Re claim 52, as shown in Figs. 1-9, Suso discloses an electronic device comprising:

a cover member 1 comprising a first display device 4 for displaying an image; and

a second display device 5 comprising a touch input tablet (Fig. 7);

wherein the cover member 1 comprising the first display device 4 and the second display panel 5 are attached to each other to allow opening and closing (Figs. 3a and 3b), and

wherein the first display device 4 and the second display device 5 is a liquid crystal display panel (col. 3, lines 12-18).

However, Suso does not disclose that the second display device including the thin film transistor formed of a semiconductor layer of amorphous silicon as recited in claims 52, 60, 69 and 78; or the first display device or the second display device includes an inverse stagger TFT as recited in claim 77.

As shown in Figs. 2A, 2B and 4, Harada discloses a portable electronic device 51 comprising dual LCD's 54 including TFTs (col. 9, lines 4-10).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the portable electronic device of Suso with the teaching of Harada by having the second display device including the thin film transistor in order to have the images appeared as one continuous screen on the dual LCD display screens (col. 9, lines 7-10).

Also, according to an intended application, it is well known in the art that the TFT is formed of a semiconductor layer of amorphous silicon and the display device includes a top gate TFT or an inverse stagger TFT as disclosed by Nakai (col. 17, lines 35-41).

Further, Suso does not suggest a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU.

As shown in Fig. 1, Nakamura discloses a display comprising an LCD display device 16 and a computer system comprising a CPU 11 electrically connected to the LCD display device 16 and a Bios Rom 17 consisting of a flash memory electrically connected to the CPU (col. 3, line 44 through col. 4, line 30).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the electronic device of Suso by employing the computer system of Nakamura comprising a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU in order to realize high-speed operation, power saving and low cost production (col. 1, lines 61-63).

Re claims 60 and 61, as shown in Figs. 1 and 2, in addition to the CPU 11 and the flash memory in the Bios Rom 17, Nakamura further discloses a VRAM 15, a DRAM 18, and a memory card 33 (col. 3, lines 44-65 and col. 4, lines 50-55), wherein the VRAM 15, the DRAM 18, and the memory card 33 are electrically connected with the CPU.

Re claim 68, Nakamura further discloses that the CPU processes and outputs an image signal, and a control circuit 14 (display controller) distributes the image signal as data to the LCD device 16 (col. 3, lines 51-60 and col. 4, lines 14-20). Accordingly, it is obvious that the image signal data corresponds to each pixel for image display in the LCD device. Re claim 79, Nakamura discloses a flash memory electrically connected with the CPU as mentioned above.

Re claims 53, 62, 70 and 80, as shown in Fig. 4, Harada discloses that the first display device 54-2 is an active matrix display.

Re claims 54, 63, 71 and 81, as shown in Fig. 7, Suso discloses that the second display device 5 displays on a screen at least one item selected from the group consisting of at least one button and an image.

Re claims 55, 64, 72 and 82, as shown in Figs. 3a and 3b, Suso discloses that the portable electronic device comprises an antenna 10 and an infrared communication means 10' as a communication function (col. 3, lines 45-65).

Re claims 56, 65, 73 and 83, as shown in Fig. 1a, Suso discloses that one of the first display device and the second display device comprises an image pickup device 9 (camera lens).

Re claims 57, 66, 74 and 84, as shown in Figs. 8a and 8b, Suso discloses that one of the first display device and the second display device comprises a system for identifying a user (col. 6, line 58 through col. 7, line 35).

Re claims 59 and 76, Suso discloses that the portable electronic device is one of a mobile telephone and a mobile television telephone.

Re claims 87, 90, 93 and 96, as shown in Figs. 3a and 3b of Suso, a display screen of the first display device and a display screen of the second display device are same size.

6. Claims 58, 67, 75 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suso et al. (Suso, US 6,069,648) in view of Harada et al. (Harada, US 6,486,890 B1), Nakai et al. (Nakai, US 6,072,454), and Nakamura et al. (Nakamura,

US 5,734,914) as applied to claims 52-57, 59-66, 68-74, 76-84, 87, 90, 93 and 96 above, and further in view of Watanabe (US 6,098,055).

As shown in Figs. 1 and 2, Nakamura discloses the CPU 11 including an image signal processing circuit 10A, wherein information processed by the CPU is outputted as the image signal from the image processing circuit 10A to the control circuit 14 (col. 3, lines 51-61 and col. 4, lines 14-20). However, Nakamura does not disclose a tablet interface for inputting a signal from the touch input tablet.

As shown in Figs. 2 and 6, Watanabe discloses a portable terminal comprising a liquid crystal display device 18 having a touch input tablet 19 (touch panel) and a tablet interface 24 (I/O interface) for inputting a signal from the touch input tablet (col. 4, lines 12-24 and col. 5, lines 47-59).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the portable electronic device of Suso by having a tablet interface for generating a signal from the touch input tablet of the second display device (col. 5, lines 47-59).

7. Claims 86, 88, 89, 91, 92, 94, 95 and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suso et al. (Suso, US 6,069,648) in view of Harada et al. (Harada, US 6,486,890 B1), Nakai et al. (Nakai, US 6,072,454), and Nakamura et al. (Nakamura, US 5,734,914) as applied to claims 52-57, 59-66, 68-74, 76-84, 87, 90, 93 and 96 above, and further in view of Zavracky et al. (Zavracky, US 2002/0158823 A1).

The portable electronic device of Suso as modified in view of Harada, Nakai and Nakamura includes all that are recited in claims 88, 91, 94 and 97 except for a first display device having a higher resolution than that of the second display device.

As shown in Fig. 21E, Zavracky discloses a portable electronic device 870 (hand held display device) comprising a first display device 880 (active matrix microdisplay) and a second display device 872 (flat panel display), wherein the first display device 880 has a high resolution for displaying text and graphics and the second display device 872 has a lower resolution for displaying simple numeric and/or alphabetic display to read telephone numbers or scrolled numbers or messages (paragraphs 257, 276 and 278).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the portable electronic device of Suso by forming the first display device having a higher resolution than that of the second display device as taught by Zavracky to obtain a portable display system of low cost and reduced size (Zavracky, paragraph 9).

Accordingly, re claims 86, 89, 92 and 95, it is obvious that the first display device has a higher image quality than that of the second display device since the first display device has a higher resolution than that of the second display device.

8. Claims 98 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (Harada, US 6,486,890 B1) in view of Nakamura et al. (Nakamura, US 5,734,914), Minami et al. (Minami, US 6,967,632 B1) and Yamazaki et al. (Yamazaki, US 5,893,730).

Re claim 98, as shown in Figs. 2A, 2B, 4 and 9-11, Harada discloses an electronic device 51 comprising:

a cover member comprising a first display device 54-2 for displaying an image; and

a second display device 54-1 comprising a touch input tablet (col. 8, lines 19-37 and col. 11, line 56 through col. 14, line 42),

wherein the cover member comprising the first display device 54-2 and the second display device 54-1 are attached to each other via a hinge 56 to allow opening and closing (col. 8, lines 46-54),

wherein the first display device 54-2 is a liquid crystal display device 54 (col. 8, lines 35-40), and

wherein the cover member protects a display screen of the second display device 54-1 (Fig. 2B).

However, Harada does not suggest a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU.

As shown in Fig. 1, Nakamura discloses a display comprising an LCD display device 16 and a computer system comprising a CPU 11 electrically connected to the LCD display device 16 and a Bios Rom 17 consisting of a flash memory electrically connected to the CPU (col. 3, line 44 through col. 4, line 30).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the electronic device of Harada by employing the computer system of Nakamura comprising a CPU electrically connected

with the second display device and a flash memory electrically connected to the CPU in order to realize high-speed operation, power saving and low cost production (col. 1, lines 61-63).

Further, Harada does not disclose that the second display device is an EL display device including a pixel portion and a driver circuit formed over a substrate.

At first, as shown in Figs. 1-7, Minami discloses an electronic device comprising a liquid crystal panel 2 and an active matrix EL display 4 for remarkably improving the operation efficiency (col. 3, lines 49-59 and col. 12, lines 16-34).

Next, as shown in Figs. 4(E) and 8-10, Yamazaki discloses a pixel portion (thin film transistor) and a driver circuit (CMOS) formed over a substrate (col. 17, lines 27-30 and col. 20, line 58 through col. 21, line 14).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the electronic device of Harada by forming the second display device as an EL display including a pixel portion and a driver circuit formed over a substrate in order to obtain a performance well equivalent to that of a MOS-FET formed on a single crystal and a thin film transistor having a small OFF current (col. 21, lines 6-26).

Re claim 99, as shown in Figs. 13(A) and 13(B), Yamazaki also discloses an active matrix display comprising a SRAM formed over the substrate (col. 20, lines 16-54). It is obviously applicable to the second display device for high speed operation (col. 20, lines 52-54).

9. Claim 100 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (Harada, US 6,486,890 B1) in view of Nakamura et al. (Nakamura, US 5,734,914), Minami et al. (Minami, US 6,967,632 B1) and Yamazaki et al. (Yamazaki, US 5,893,730) as applied to claims 98 and 99 above, and further in view of Kim et al. (Kim, US 6,265,833 B1).

The portable electronic device of Harada as modified in view of Nakamura, Minami and Yamazaki above includes all that is recited in claim 100 except for the second display having a sensor formed over the substrate.

As shown in Fig. 1, Kim discloses an EL display comprising an optical sensor 1 for sensing the intensity of light of the outside environment (col. 9, line 54 through col. 10, line 14).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the electronic device of Harada by forming the second display device as an EL display having a sensor formed over the substrate in order to control the driving current and the driving voltage at a minimum power consumption (col. 10, lines 42-45).

10. Claims 101 and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebby et al. (Lebby, US 6,158,884) in view of Nakamura et al. (Nakamura, US 5,734,914) and Suso et al. (Suso, US 6,069,648).

Re claim 101, as shown in Figs. 5 and 6, Lebby discloses a portable electronic device 10" comprising:

a cover member 52 comprising a first display device 46 for displaying an image;

a second display device 42; and

a third display device 44;

wherein the cover member 52 and the second display device 42 are attached to each other to allow opening and closing with the third display device 44 therebetween (col. 8, lines 46-54), and

wherein the first display device 46 and the second display device 42 are an EL display device (col. 5, line 52 through col. 6, line 52).

However, Lebby does not suggest a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU.

As shown in Fig. 1, Nakamura discloses a display comprising an LCD display device 16 and a computer system comprising a CPU 11 electrically connected to the LCD display device 16 and a Bios Rom 17 consisting of a flash memory electrically connected to the CPU (col. 3, line 44 through col. 4, line 30).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the portable electronic device of Lebby by employing the computer system of Nakamura comprising a CPU electrically connected with the second display device and a flash memory electrically connected to the CPU in order to realize high-speed operation, power saving and low cost production (col. 1, lines 61-63).

Further, Lebby does not disclose that the second display device comprising a touch input tablet.

As shown in Figs. 1 and 2, Suso discloses a portable electronic device comprising a first display device 4 and a second display device 5, each comprising a touch input tablet (col. 3, lines 12-16).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the portable electronic device of Lebby by forming a touch input tablet on the second display device in order to realize display multifunction (col. 9, lines 43-52).

Re claim 103, Lebby discloses that the third display device 44 can be fabricated by liquid crystal technology (col. 6, lines 8-21 and 47-52). Accordingly, it is obvious that the third display device 44 can be a transmission liquid crystal display device.

Allowable Subject Matter

11. Claim 102 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically, none of the prior art of record discloses, in combination with other limitations as claimed, the third display device being a reflection liquid crystal display device, wherein the third display device is made to display by irradiating light emitted from the EL display device.

The most relevant reference, US 6,158,884 to Lebby et al. (Lebby), fails to disclose or suggest the claimed invention. As shown in Figs. 5 and 6, Lebby only

discloses that the third display device 44 is a liquid crystal display device (col. 6, lines 8-21 and 47-52).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms, can be reached at (571) 272-1787.

Thoi V. Duong – Primary Examiner

November 20, 2007

